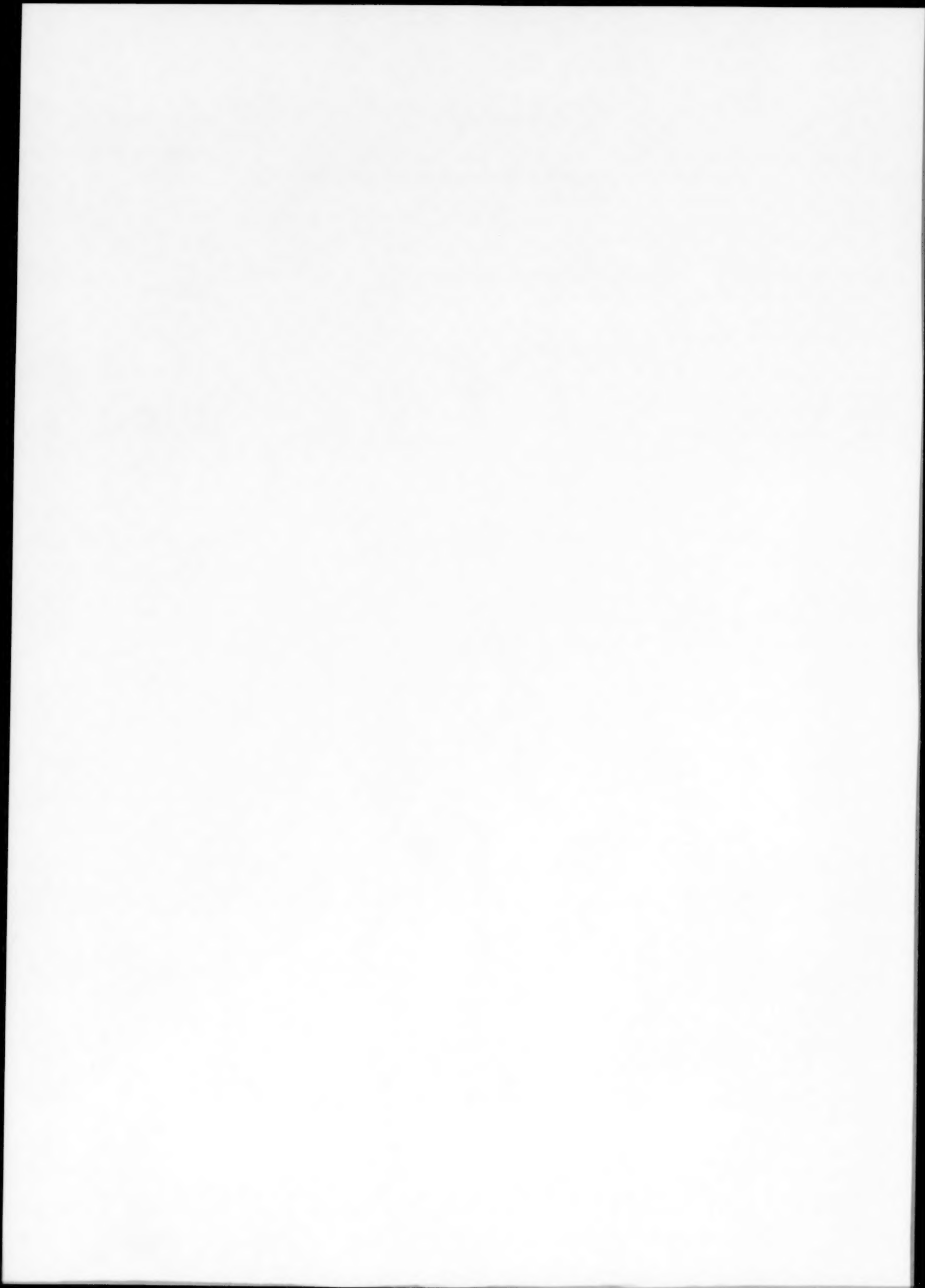


Author index to volume 234

- Ahern, M.M., see Belikov, A.E. 234 (1998) 195
- Bässler, H., see Borsenberger, P.M. 234 (1998) 277
- Bauschlicher, Jr., C.W., Infrared spectra of polycyclic aromatic hydrocarbons: nitrogen substitution 234 (1998) 87
- Bauschlicher, Jr., C.W. and S.R. Langhoff, Infrared spectra of polycyclic aromatic hydrocarbons: methyl substitution and loss of H 234 (1998) 79
- Belikov, A.E., M.M. Ahern and M.A. Smith, REMPI spectroscopy of internal state populations in HBr + Ar free jets: Rotational relaxation of HBr 234 (1998) 195
- Benderskii, V.A. and E.V. Vetoshkin, Tunneling splittings in vibrational spectra of non-rigid molecules. IV. Kinematic couplings 234 (1998) 173
- Benderskii, V.A., E.V. Vetoshkin and H.P. Trommsdorff, Tunneling splittings in vibrational spectra of non-rigid molecules: III. Tunneling coordinate-dependent coupling between small amplitude motions 234 (1998) 153
- Bol'shakov, B.V., see Grebenkin, S.Yu. 234 (1998) 239
- Borsenberger, P.M., W.T. Gruenbaum, U. Wolf and H. Bässler, Hole trapping in tri-*p*-tolylamine-doped poly(styrene) 234 (1998) 277
- Brutschy, B., see Lommatzsch, U. 234 (1998) 35
- Cai, Z.-L. and J.P. François, Ab initio study of the $X^2\Sigma^+$ and $A^2\Pi$ states of the SiO^+ cation including the effect of core correlation 234 (1998) 59
- Calhorda, M.J., see Lobo, R.F.M. 234 (1998) 265
- Chesnut, D.B., see Dransfeld, A. 234 (1998) 69
- Decleva, P., see Venuti, M. 234 (1998) 95
- Doktorov, A.B., see Jenkins, O.B. 234 (1998) 121
- Dransfeld, A. and D.B. Chesnut, An ab initio study of NMR isotropic shielding bond length derivatives in phosphorus compounds 234 (1998) 69
- Duran, M., see Forés, M. 234 (1998) 1
- Edwards, M.A. and J.F. Hershberger, Kinetics of the $\text{CN} + \text{CH}_2\text{CO}$ and $\text{NCO} + \text{CH}_2\text{CO}$ reactions 234 (1998) 231
- Eland, J.H.D., see Hochlaf, M. 234 (1998) 249
- Forés, M., M. Duran and M. Solà, Intramolecular proton transfer in the ground and the two lowest-lying singlet excited states of 1-amino-3-propenal and related species 234 (1998) 1
- François, J.P., see Cai, Z.-L. 234 (1998) 59
- Gole, J.L., see McQuaid, M.J. 234 (1998) 297
- Gould, I.R., see Scholes, G.D. 234 (1998) 21

- Grebenkin, S.Yu. and B.V. Bol'shakov, Light induced *cis-trans* isomerization of azo compounds in polymethyl methacrylate 234 (1998) 239
- Gruenbaum, W.T., see Borsenberger, P.M. 234 (1998) 277
- Hall, R.I., see Hochlaf, M. 234 (1998) 249
- Hershberger, J.F., see Edwards, M.A. 234 (1998) 231
- Hochlaf, M., R.I. Hall, F. Penent, J.H.D. Eland and P. Lablanquie, Investigation of the CS_2^{2+} dication using threshold photoelectrons coincidence spectroscopy 234 (1998) 249
- Jenkins, O.B. and A.B. Doktorov, The steady-state Green's function theory in monomolecular reactions. II. Effects of solvent dynamics and non-equilibrium initial distributions in reactions on position-dependent transition regions 234 (1998) 121
- Kadashchuk, A., N. Ostapenko, V. Zaika and S. Nešpùrek, Low-temperature thermoluminescence in poly(methyl-phenylsilylene) 234 (1998) 285
- Kearley, G.J., see Line, C.M.B. 234 (1998) 207
- Lablanquie, P., see Hochlaf, M. 234 (1998) 249
- Langhoff, S.R., see Bauschlicher, Jr., C.W. 234 (1998) 79
- Line, C.M.B. and G.J. Kearley, The librational and vibrational spectra of water in natrolite, $\text{Na}_2\text{Al}_2\text{Si}_3\text{O}_{10} \cdot 2\text{H}_2\text{O}$ compared with ab-initio calculations 234 (1998) 207
- Lobo, R.F.M., A.M.C. Moutinho and M.J. Calhorda, Fragmentation pathways in the dissociation of fluoro-iodo-benzene negative ions 234 (1998) 265
- Lommatzsch, U. and B. Brutschy, Ab initio calculations and supersonic jet studies on the geometry of 4-dimethylaminobenzonitrile (DMABN) and related compounds in the ground and excited state 234 (1998) 35
- McQuaid, M.J. and J.L. Gole, Effect of $\text{Al}(\text{CO})_x$ complexation on the aluminum oxidation process 234 (1998) 297
- Moutinho, A.M.C., see Lobo, R.F.M. 234 (1998) 265
- Nešpùrek, S., see Kadashchuk, A. 234 (1998) 285
- Ostapenko, N., see Kadashchuk, A. 234 (1998) 285
- Parker, A.W., see Scholes, G.D. 234 (1998) 21
- Pecul, M. and J. Sadlej, Solvent effects on NMR spectrum of acetylene calculated by ab initio methods 234 (1998) 111
- Penent, F., see Hochlaf, M. 234 (1998) 249
- Phillips, D., see Scholes, G.D. 234 (1998) 21
- Sadlej, J., see Pecul, M. 234 (1998) 111
- Saito, N., see Suzuki, I.H. 234 (1998) 255
- Scholes, G.D., I.R. Gould, A.W. Parker and D. Phillips, Time-resolved resonance Raman and molecular orbital studies of charge separation and intramolecular reorganisation 234 (1998) 21
- Seliger, J. and V. Žagar, ^{17}O nuclear quadrupole resonance study of proton disorder in solid benzoic acid, 4-hydroxybenzoic acid and 4-nitrobenzoic acid 234 (1998) 223
- Smith, M.A., see Belikov, A.E. 234 (1998) 195
- Solà, M., see Forés, M. 234 (1998) 1

- Stener, M., see Venuti, M. 234 (1998) 95
- Suzuki, I.H. and N. Saito, Fragment ion yields from CFCl_3 photoexcited in regions of the $\text{Cl}2p$, the $\text{Cl}1s$, and the $\text{F}1s$ electron transitions 234 (1998) 255
- Trommsdorff, H.P., see Benderskii, V.A. 234 (1998) 153
- Venuti, M., M. Stener and P. Decleva, Valence photoionization of C_6H_6 by the B-spline one-centre expansion density functional method 234 (1998) 95
- Vetoshkin, E.V., see Benderskii, V.A. 234 (1998) 153
- Vetoshkin, E.V., see Benderskii, V.A. 234 (1998) 173
- Wolf, U., see Borsenberger, P.M. 234 (1998) 277
- Žagar, V., see Seliger, J. 234 (1998) 223
- Zaika, V., see Kadashchuk, A. 234 (1998) 285



Subject index to volume 234

Methods and constructs

Theoretical

Computational methods for electronic structure

- Intramolecular proton transfer in the ground and the two lowest-lying singlet excited states of 1-amino-3-propenal and related species, M. Forés, M. Duran and M. Solà 234 (1998) 1
- Time-resolved resonance Raman and molecular orbital studies of charge separation and intramolecular reorganisation, G.D. Scholes, I.R. Gould, A.W. Parker and D. Phillips 234 (1998) 21
- Ab initio calculations and supersonic jet studies on the geometry of 4-dimethylamino-benzonitrile (DMABN) and related compounds in the ground and excited state, U. Lommatzsch and B. Brutschy 234 (1998) 35

-CI and valence bond approach

- Ab initio study of the $X^2\Sigma^+$ and $A^2\Pi$ states of the SiO^+ cation including the effect of core correlation, Z.-L. Cai and J.P. François 234 (1998) 59

-perturbative and many body approaches

- An ab initio study of NMR isotropic shielding bond length derivatives in phosphorus compounds, A. Dransfeld and D.B. Chesnut 234 (1998) 69

-density functional theory

- Ab initio study of the $X^2\Sigma^+$ and $A^2\Pi$ states of the SiO^+ cation including the effect of core correlation, Z.-L. Cai and J.P. François 234 (1998) 59
- Infrared spectra of polycyclic aromatic hydrocarbons: methyl substitution and loss of H, C.W. Bauschlicher, Jr. and S.R. Langhoff 234 (1998) 79
- Infrared spectra of polycyclic aromatic hydrocarbons: nitrogen substitution, C.W. Bauschlicher, Jr. 234 (1998) 87
- Valence photoionization of C_6H_6 by the B-spline one-centre expansion density functional method, M. Venuti, M. Stener and P. Decleva 234 (1998) 95

Spin states and magnetic interactions

- An ab initio study of NMR isotropic shielding bond length derivatives in phosphorus compounds, A. Dransfeld and D.B. Chesnut 234 (1998) 69

- Solvent effects on NMR spectrum of acetylene calculated by ab initio methods, M. Pecul and J. Sadlej 234 (1998) 111
- Reactive molecular dynamics including dissipative processes*
- The steady-state Green's function theory in monomolecular reactions. II. Effects of solvent dynamics and non-equilibrium initial distributions in reactions on position-dependent transition regions, O.B. Jenkins and A.B. Doktorov 234 (1998) 121
- Intramolecular dynamics*
- Tunneling splittings in vibrational spectra of non-rigid molecules: III. Tunneling coordinate-dependent coupling between small amplitude motions, V.A. Benderskii, E.V. Vetoshkin and H.P. Trommsdorff 234 (1998) 153
- Tunneling splittings in vibrational spectra of non-rigid molecules. IV. Kinematic couplings, V.A. Benderskii and E.V. Vetoshkin 234 (1998) 173
- REMPI spectroscopy of internal state populations in HBr + Ar free jets: Rotational relaxation of HBr, A.E. Belikov, M.M. Ahern and M.A. Smith 234 (1998) 195
- Molecular dynamics of many particle systems and condensed phases*
- The librational and vibrational spectra of water in natrolite, $\text{Na}_2\text{Al}_2\text{Si}_3\text{O}_{10} \cdot 2\text{H}_2\text{O}$ compared with ab-initio calculations, C.M.B. Line and G.J. Kearley 234 (1998) 207
- Experiment**
- Magnetic resonances*
- Solvent effects on NMR spectrum of acetylene calculated by ab initio methods, M. Pecul and J. Sadlej 234 (1998) 111
- ^{17}O nuclear quadrupole resonance study of proton disorder in solid benzoic acid, 4-hydroxybenzoic acid and 4-nitrobenzoic acid, J. Seliger and V. Žagar 234 (1998) 223
- Molecular spectroscopy*
- Ab initio study of the $X^2\Sigma^+$ and $A^2\Pi$ states of the SiO^+ cation including the effect of core correlation, Z.-L. Cai and J.P. François 234 (1998) 59
- Kinetics of the $\text{CN} + \text{CH}_2\text{CO}$ and $\text{NCO} + \text{CH}_2\text{CO}$ reactions, M.A. Edwards and J.F. Hershberger 234 (1998) 231
- infrared*
- The librational and vibrational spectra of water in natrolite, $\text{Na}_2\text{Al}_2\text{Si}_3\text{O}_{10} \cdot 2\text{H}_2\text{O}$ compared with ab-initio calculations, C.M.B. Line and G.J. Kearley 234 (1998) 207
- Kinetics of the $\text{CN} + \text{CH}_2\text{CO}$ and $\text{NCO} + \text{CH}_2\text{CO}$ reactions, M.A. Edwards and J.F. Hershberger 234 (1998) 231
- Raman*
- Time-resolved resonance Raman and molecular orbital studies of charge separation and intramolecular reorganisation, G.D. Scholes, I.R. Gould, A.W. Parker and D. Phillips 234 (1998) 21
- UV*
- Light induced *cis-trans* isomerization of azo compounds in polymethyl methacrylate, S.Yu. Grebenkin and B.V. Bol'shakov 234 (1998) 239

-visible

- Time-resolved resonance Raman and molecular orbital studies of charge separation and intramolecular reorganisation, G.D. Scholes, I.R. Gould, A.W. Parker and D. Phillips 234 (1998) 21
- Kinetics of the $\text{CN} + \text{CH}_2\text{CO}$ and $\text{NCO} + \text{CH}_2\text{CO}$ reactions, M.A. Edwards and J.F. Hersberger 234 (1998) 231

Photoelectron and Auger spectroscopy

- Investigation of the CS_2^{2+} dication using threshold photoelectrons coincidence spectroscopy, M. Hochlaf, R.I. Hall, F. Penent, J.H.D. Eland and P. Lablanquie 234 (1998) 249

Multiphoton ionization

- REMPI spectroscopy of internal state populations in $\text{HBr} + \text{Ar}$ free jets: Rotational relaxation of HBr , A.E. Belikov, M.M. Ahern and M.A. Smith 234 (1998) 195

Laser induced fluorescence

- Ab initio calculations and supersonic jet studies on the geometry of 4-dimethylamino-benzonitrile (DMABN) and related compounds in the ground and excited state, U. Lommatzsch and B. Brutschy 234 (1998) 35
- REMPI spectroscopy of internal state populations in $\text{HBr} + \text{Ar}$ free jets: Rotational relaxation of HBr , A.E. Belikov, M.M. Ahern and M.A. Smith 234 (1998) 195

Ultrafast measurements

- Time-resolved resonance Raman and molecular orbital studies of charge separation and intramolecular reorganisation, G.D. Scholes, I.R. Gould, A.W. Parker and D. Phillips 234 (1998) 21

Synchrotron spectroscopies

- Investigation of the CS_2^{2+} dication using threshold photoelectrons coincidence spectroscopy, M. Hochlaf, R.I. Hall, F. Penent, J.H.D. Eland and P. Lablanquie 234 (1998) 249
- Fragment ion yields from CFCl_3 photoexcited in regions of the $\text{Cl}2p$, the $\text{Cl}1s$, and the $\text{F}1s$ electron transitions, I.H. Suzuki and N. Saito 234 (1998) 255

Atomic and molecular beam techniques

- Ab initio calculations and supersonic jet studies on the geometry of 4-dimethylamino-benzonitrile (DMABN) and related compounds in the ground and excited state, U. Lommatzsch and B. Brutschy 234 (1998) 35
- Fragmentation pathways in the dissociation of fluoro-iodo-benzene negative ions, R.F.M. Lobo, A.M.C. Moutinho and M.J. Calhorda 234 (1998) 265

Mass spectroscopy

- Fragment ion yields from CFCl_3 photoexcited in regions of the $\text{Cl}2p$, the $\text{Cl}1s$, and the $\text{F}1s$ electron transitions, I.H. Suzuki and N. Saito 234 (1998) 255

Neutron scattering (inelastic and quasielastic)

- The librational and vibrational spectra of water in natrolite, $\text{Na}_2\text{Al}_2\text{Si}_3\text{O}_{10} \cdot 2\text{H}_2\text{O}$ compared with ab-initio calculations, C.M.B. Line and G.J. Kearley 234 (1998) 207

Objects

Bulk systems

Gases

- An ab initio study of NMR isotropic shielding bond length derivatives in phosphorus compounds, A. Dransfeld and D.B. Chesnut 234 (1998) 69
- Infrared spectra of polycyclic aromatic hydrocarbons: methyl substitution and loss of H, C.W. Bauschlicher, Jr. and S.R. Langhoff 234 (1998) 79
- Solvent effects on NMR spectrum of acetylene calculated by ab initio methods, M. Pecul and J. Sadlej 234 (1998) 111
- REMPI spectroscopy of internal state populations in HBr + Ar free jets: Rotational relaxation of HBr, A.E. Belikov, M.M. Ahern and M.A. Smith 234 (1998) 195

Supersonic beams

- Ab initio calculations and supersonic jet studies on the geometry of 4-dimethylamino-benzonitrile (DMABN) and related compounds in the ground and excited state, U. Lommatzsch and B. Brutschy 234 (1998) 35

Liquid mixtures and solutions

- The steady-state Green's function theory in monomolecular reactions. II. Effects of solvent dynamics and non-equilibrium initial distributions in reactions on position-dependent transition regions, O.B. Jenkins and A.B. Doktorov 234 (1998) 121

Crystals

- The librational and vibrational spectra of water in natrolite, $\text{Na}_2\text{Al}_2\text{Si}_3\text{O}_{10} \cdot 2\text{H}_2\text{O}$ compared with ab-initio calculations, C.M.B. Line and G.J. Kearley 234 (1998) 207

-neat

- ^{17}O nuclear quadrupole resonance study of proton disorder in solid benzoic acid, 4-hydroxybenzoic acid and 4-nitrobenzoic acid, J. Seliger and V. Žagar 234 (1998) 223

Glasses

- Hole trapping in tri-*p*-tolylamine-doped poly(styrene), P.M. Borsenberger, W.T. Gruenbaum, U. Wolf and H. Bässler 234 (1998) 277

Polymers

- Hole trapping in tri-*p*-tolylamine-doped poly(styrene), P.M. Borsenberger, W.T. Gruenbaum, U. Wolf and H. Bässler 234 (1998) 277

Microscopic and mesoscopic systems

Molecules (neutral and ionic)

- Intramolecular proton transfer in the ground and the two lowest-lying singlet excited states of 1-amino-3-propenal and related species, M. Forés, M. Duran and M. Solà 234 (1998) 1

- An ab initio study of NMR isotropic shielding bond length derivatives in phosphorus compounds, A. Dransfeld and D.B. Chesnut 234 (1998) 69
- Infrared spectra of polycyclic aromatic hydrocarbons: nitrogen substitution, C.W. Bauschlicher, Jr. 234 (1998) 87
- Tunneling splittings in vibrational spectra of non-rigid molecules: III. Tunneling coordinate-dependent coupling between small amplitude motions, V.A. Benderskii, E.V. Vetoshkin and H.P. Trommsdorff 234 (1998) 153
- Tunneling splittings in vibrational spectra of non-rigid molecules. IV. Kinematic couplings, V.A. Benderskii and E.V. Vetoshkin 234 (1998) 173
- Light induced *cis-trans* isomerization of azo compounds in polymethyl methacrylate, S.Yu. Grebenkin and B.V. Bol'shakov 234 (1998) 239
- Fragmentation pathways in the dissociation of fluoro-iodo-benzene negative ions, R.F.M. Lobo, A.M.C. Moutinho and M.J. Calhorda 234 (1998) 265
- diatomic*
- Ab initio study of the $X^2\Sigma^+$ and $A^2\Pi$ states of the SiO^+ cation including the effect of core correlation, Z.-L. Cai and J.P. François 234 (1998) 59
- REMPI spectroscopy of internal state populations in $\text{HBr} + \text{Ar}$ free jets: Rotational relaxation of HBr, A.E. Belikov, M.M. Ahern and M.A. Smith 234 (1998) 195
- small polyatomics*
- The librational and vibrational spectra of water in natrolite, $\text{Na}_2\text{Al}_2\text{Si}_3\text{O}_{10} \cdot 2\text{H}_2\text{O}$ compared with ab-initio calculations, C.M.B. Line and G.J. Kearley 234 (1998) 207
- Investigation of the CS_2^{2+} dication using threshold photoelectrons coincidence spectroscopy, M. Hochlaf, R.I. Hall, F. Penent, J.H.D. Eland and P. Lablanquie 234 (1998) 249
- Fragment ion yields from CFCl_3 photoexcited in regions of the $\text{Cl}2p$, the $\text{Cl}1s$, and the $\text{F}1s$ electron transitions, I.H. Suzuki and N. Saito 234 (1998) 255
- aromatics*
- Ab initio calculations and supersonic jet studies on the geometry of 4-dimethylamino-benzonitrile (DMABN) and related compounds in the ground and excited state, U. Lommatzsch and B. Brutschy 234 (1998) 35
- Infrared spectra of polycyclic aromatic hydrocarbons: methyl substitution and loss of H, C.W. Bauschlicher, Jr. and S.R. Langhoff 234 (1998) 79
- Infrared spectra of polycyclic aromatic hydrocarbons: nitrogen substitution, C.W. Bauschlicher, Jr. 234 (1998) 87
- Valence photoionization of C_6H_6 by the B-spline one-centre expansion density functional method, M. Venuti, M. Stener and P. Decleva 234 (1998) 95
- Fragmentation pathways in the dissociation of fluoro-iodo-benzene negative ions, R.F.M. Lobo, A.M.C. Moutinho and M.J. Calhorda 234 (1998) 265
- polymeric and biological*
- Low-temperature thermoluminescence in poly(methyl-phenylsilylene), A. Kadashchuk, N. Ostapenko, V. Zaika and S. Nešpùrek 234 (1998) 285
- Molecular aggregates*
- Effect of $\text{Al}(\text{CO})_x$ complexation on the aluminum oxidation process, M.J. McQuaid and J.L. Gole 234 (1998) 297

-dimers

- ¹⁷O nuclear quadrupole resonance study of proton disorder in solid benzoic acid, 4-hydroxybenzoic acid and 4-nitrobenzoic acid, J. Seliger and V. Žagar 234 (1998) 223

-complexes

- Effect of Al(CO)_x complexation on the aluminum oxidation process, M.J. McQuaid and J.L. Gole 234 (1998) 297

Free radicals (incl. hydronium and muonium)

- Kinetics of the CN + CH₂CO and NCO + CH₂CO reactions, M.A. Edwards and J.F. Hersberger 234 (1998) 231

Phenomena*Molecular structure*

- Intramolecular proton transfer in the ground and the two lowest-lying singlet excited states of 1-amino-3-propenal and related species, M. Forés, M. Duran and M. Solà 234 (1998) 1
- An ab initio study of NMR isotropic shielding bond length derivatives in phosphorus compounds, A. Dransfeld and D.B. Chesnut 234 (1998) 69
- Infrared spectra of polycyclic aromatic hydrocarbons: methyl substitution and loss of H, C.W. Bauschlicher, Jr. and S.R. Langhoff 234 (1998) 79
- Infrared spectra of polycyclic aromatic hydrocarbons: nitrogen substitution, C.W. Bauschlicher, Jr. 234 (1998) 87
- Effect of Al(CO)_x complexation on the aluminum oxidation process, M.J. McQuaid and J.L. Gole 234 (1998) 297

Vibrations and rotations of molecules

- Ab initio calculations and supersonic jet studies on the geometry of 4-dimethylaminobenzonitrile (DMABN) and related compounds in the ground and excited state, U. Lommatzsch and B. Brutschy 234 (1998) 35
- Infrared spectra of polycyclic aromatic hydrocarbons: methyl substitution and loss of H, C.W. Bauschlicher, Jr. and S.R. Langhoff 234 (1998) 79
- Infrared spectra of polycyclic aromatic hydrocarbons: nitrogen substitution, C.W. Bauschlicher, Jr. 234 (1998) 87
- The librational and vibrational spectra of water in natrolite, Na₂Al₂Si₃O₁₀ · 2H₂O compared with ab-initio calculations, C.M.B. Line and G.J. Kearley 234 (1998) 207
- Investigation of the CS₂²⁺ dication using threshold photoelectrons coincidence spectroscopy, M. Hochlaf, R.I. Hall, F. Penent, J.H.D. Eland and P. Lablanquie 234 (1998) 249

Electronic structure and states

- Intramolecular proton transfer in the ground and the two lowest-lying singlet excited states of 1-amino-3-propenal and related species, M. Forés, M. Duran and M. Solà 234 (1998) 1
- Ab initio study of the X²Σ⁺ and A²Π states of the SiO⁺ cation including the effect of core correlation, Z.-L. Cai and J.P. François 234 (1998) 59

- Investigation of the CS_2^{2+} dication using threshold photoelectrons coincidence spectroscopy, M. Hochlaf, R.I. Hall, F. Penent, J.H.D. Eland and P. Lablanquie 234 (1998) 249
- Hole trapping in tri-*p*-tolylamine-doped poly(styrene), P.M. Borsenberger, W.T. Gruenbaum, U. Wolf and H. Bässler 234 (1998) 277
- Electric and magnetic properties*
- Solvent effects on NMR spectrum of acetylene calculated by ab initio methods, M. Pecul and J. Sadlej 234 (1998) 111
- Molecular interactions*
- REMPI spectroscopy of internal state populations in HBr + Ar free jets: Rotational relaxation of HBr, A.E. Belikov, M.M. Ahern and M.A. Smith 234 (1998) 195
- Hole trapping in tri-*p*-tolylamine-doped poly(styrene), P.M. Borsenberger, W.T. Gruenbaum, U. Wolf and H. Bässler 234 (1998) 277
- Coupling of electronic and nuclear motion*
- An ab initio study of NMR isotropic shielding bond length derivatives in phosphorus compounds, A. Dransfeld and D.B. Chesnut 234 (1998) 69
- Molecular photophysical processes*
- Investigation of the CS_2^{2+} dication using threshold photoelectrons coincidence spectroscopy, M. Hochlaf, R.I. Hall, F. Penent, J.H.D. Eland and P. Lablanquie 234 (1998) 249
- Photochemistry*
- Intramolecular proton transfer in the ground and the two lowest-lying singlet excited states of 1-amino-3-propenal and related species, M. Forés, M. Duran and M. Solà 234 (1998) 1
- Light induced *cis-trans* isomerization of azo compounds in polymethyl methacrylate, S.Yu. Grebenkin and B.V. Bol'shakov 234 (1998) 239
- Intramolecular dynamics*
- ^{17}O nuclear quadrupole resonance study of proton disorder in solid benzoic acid, 4-hydroxybenzoic acid and 4-nitrobenzoic acid, J. Seliger and V. Žagar 234 (1998) 223
- Fragmentation pathways in the dissociation of fluoro-iodo-benzene negative ions, R.F.M. Lobo, A.M.C. Moutinho and M.J. Calhorda 234 (1998) 265
- Effect of $\text{Al}(\text{CO})_x$ complexation on the aluminum oxidation process, M.J. McQuaid and J.L. Gole 234 (1998) 297
- Luminescence spectra, yields and lifetimes*
- Low-temperature thermoluminescence in poly(methyl-phenylsilylene), A. Kadashchuk, N. Ostapenko, V. Zaika and S. Nešpùrek 234 (1998) 285
- Reactions (incl. dissociation)*
- Kinetics of the $\text{CN} + \text{CH}_2\text{CO}$ and $\text{NCO} + \text{CH}_2\text{CO}$ reactions, M.A. Edwards and J.F. Hersberger 234 (1998) 231
- isolated molecules*
- Fragment ion yields from CFCl_3 photoexcited in regions of the $\text{Cl}2p$, the $\text{Cl}1s$, and the $\text{F}1s$ electron transitions, I.H. Suzuki and N. Saito 234 (1998) 255

Tunneling

- Tunneling splittings in vibrational spectra of non-rigid molecules: III. Tunneling coordinate-dependent coupling between small amplitude motions, V.A. Benderskii, E.V. Vetoshkin and H.P. Trommsdorff 234 (1998) 153
- Tunneling splittings in vibrational spectra of non-rigid molecules. IV. Kinematic couplings, V.A. Benderskii and E.V. Vetoshkin 234 (1998) 173

Electron transfer

- The steady-state Green's function theory in monomolecular reactions. II. Effects of solvent dynamics and non-equilibrium initial distributions in reactions on position-dependent transition regions, O.B. Jenkins and A.B. Doktorov 234 (1998) 121
- Fragmentation pathways in the dissociation of fluoro-iodo-benzene negative ions, R.F.M. Lobo, A.M.C. Moutinho and M.J. Calhorda 234 (1998) 265

Proton and hydrogen atom transfer

- Intramolecular proton transfer in the ground and the two lowest-lying singlet excited states of 1-amino-3-propenal and related species, M. Forés, M. Duran and M. Solà 234 (1998) 1
- The steady-state Green's function theory in monomolecular reactions. II. Effects of solvent dynamics and non-equilibrium initial distributions in reactions on position-dependent transition regions, O.B. Jenkins and A.B. Doktorov 234 (1998) 121

Ionization (incl. Rydberg states)

- Valence photoionization of C_6H_6 by the B-spline one-centre expansion density functional method, M. Venuti, M. Stener and P. Decleva 234 (1998) 95
- Fragment ion yields from $CFCl_3$ photoexcited in regions of the $Cl2p$, the $C1s$, and the $F1s$ electron transitions, I.H. Suzuki and N. Saito 234 (1998) 255

Electronic process in gases

- Effect of $Al(CO)_x$ complexation on the aluminum oxidation process, M.J. McQuaid and J.L. Gole 234 (1998) 297